IN THE CLAIMS

Please amend the claims as follows.

For the Examiner's convenience, a list of all claims is included below.

1. (Currently Amended) An acousto-optic tunable filter comprising:

an optical fiber having an interaction length;

a wave generator coupled to the optical fiber and generating an acoustic wave in the optical fiber; and

a damper located on the optical fiber with the interaction length between the wave generator and the damper, the damper having a proximal surface relative to the wave generator, the proximal surface continuously slanted relative to a longitudinal axis of the optical fiber. ~~first surface which, as viewed in cross-section through the damper and the fiber at right angles to a direction in which the fiber extends, covers a portion only of the optical fiber.~~

2. (Currently Amended) The acousto-optic filter of claim 1 wherein the acoustic wave is ~~the~~ a flexural wave.

3. (Currently Amended) The acousto-optic filter of claim 2 wherein the flexural wave has an amplitude in a y-direction and the ~~first~~ proximal surface is at an acute angle relative to the y-direction.

4. (Cancelled)

5. (Currently Amended) The acousto-optic filter of claim ~~4~~ 3 wherein the damper has a distal surface, relative to the wave generator, the distal surface continuously slanted relative to a longitudinal axis of the optical fiber. ~~second surface on a side thereof opposing the transducer which is slanted.~~

6. (Cancelled)

7. (Currently Amended) The acousto-optic filter of claim ~~6~~ 5 wherein reflections of the flexural wave by the ~~first and second~~ proximal and distal surfaces respectively at least partially cancel one another out.

8. (Original) The acousto-optic filter of claim 1 wherein the damper is made of at least one of silicone and a porous material.

9. (Currently Amended) The acousto-optic filter of claim 1 wherein the mount has a groove and the fiber is located longitudinally in the groove such that a portion of the groove is below the fiber and a portion of the grove is above the fiber, the damper being deposited over the fiber within the groove and being longer, as measured in the direction in which the wave travels, in the portion of the groove below the fiber than in the portion of the groove above the fiber. ~~in a base of the groove, than above the fiber.~~

10. (Original) The acousto-optic filter of claim 1 wherein light couples from one optical mode to another in the fiber.

11. (Currently Amended) The acousto-optic filter of claim 10 wherein the interaction length has a core through which the light travels and a cladding into which the light couples due to the acoustic wave.

12. (Original) The acousto-optic filter of claim 11 wherein the damper has a refractive index substantially close to the refractive index of a layer of the cladding.

13. (Currently Amended) The acousto-optic filter of claim 10 wherein the proximal surface has a varying slope.

14. (Currently Amended) The acousto-optic filter of claim 13 wherein a portion of the proximal surface through which the optical fiber passes, ~~relative to a direction in which the optical fiber extends~~, is slanted at a smaller angle than either a portion of the proximal surface above the optical fiber or a portion of the proximal surface below the optical fiber. ~~next to the optical fiber than above and below the optical fiber.~~

15. (Currently Amended) An acousto-optic filter comprising:

an optical fiber having an interaction length;

a wave generator coupled to the fiber and generating an acoustic wave in the optical fiber; and

one or more dampers located on the optical fiber with the interaction length between the wave generator and the one or more dampers, such that the one or more dampers define ~~defining~~ a plurality of surfaces, the surfaces continuously slanted relative to a longitudinal axis of the optical fiber such that ~~.transverse to a direction in which the acoustic wave travels,~~ back

reflections of the acoustic wave ~~by the surfaces back towards the wave generator~~ at least partially cancel~~ing~~ out forward propagation of the acoustic wave. ~~one another out.~~

16. (Currently Amended) The acousto-optic filter of claim 15 wherein the acoustic wave is ~~the~~ a flexural wave.

17. (Currently Amended) The acousto-optic filter of claim 15 wherein the surfaces are first and second surfaces of a first damper respectively facing toward and away from ~~the~~ a transducer.

18. (Currently Amended) The acousto-optic filter of claim 17 wherein a third ~~of the surfaces~~ surface is on a second damper and faces towards the second surface.

19. (Currently Amended) The acousto-optic filter of claim 15 wherein the first surface ~~at least a first of the surfaces~~ is at an oblique angle relative to the direction in which the wave travels.

20. (Currently Amended) The acousto-optic filter of claim 19 wherein the second surface ~~at least a second of the surfaces~~ is at an oblique angle relative to the direction in which the flexural wave travels.

21. (Currently Amended) A method of filtering light comprising:

transmitting ~~the~~ a light through an optical fiber;

vibrating a first end of an interaction length of the fiber to generate an acoustic wave traveling through the interaction length; and

damping the transverse wave with a damper at a second, opposing end of the interaction length, the damper having a first surface continuously slanted relative to a longitudinal axis of the optical fiber. ~~which is slanted so that the damper covers a portion only of the optical fiber as viewed in cross-section through the damper and the fiber at right angles to a direction in which the fiber extends.~~

22. (Currently Amended) A method of filtering light comprising:

transmitting ~~the~~ a light through an optical fiber;

vibrating a first end of an interaction length of the optical fiber to generate an acoustic wave traveling through the interaction length;

reflecting a first portion of the acoustic wave with a first location at a second, opposing end of the interaction length, back towards the first end; and

reflecting a second portion of the acoustic wave at a second location, on a side of ~~the~~ a first surface opposing the first end, back toward the first end, the portions of the acoustic wave reflected from the first and second locations at least partially canceling one another out.

23. (New) The acousto-optic tunable filter of claim 5 wherein the proximal surface of the damper is slanted at an angle ranging from approximately 1 - 20 degrees and wherein the distal surface of the damper is slanted at an angle ranging from approximately 5 - 35 degrees.